

Interference

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	5	(route adj (ATM near12 packet\$1)). clm.	USPAT	OR	OFF	2005/08/08 11:15
L2	5	1 and "370"/\$.ccls.	USPAT	OR	OFF	2005/08/08 11:15
L3	3	2 and 370/392,395.1,401.ccls.	USPAT	OR	OFF	2005/08/08 11:16
L4	0	3 and (memory near12 integral near20 receiver)	USPAT	OR	OFF	2005/08/08 11:19
L5	0	3 and (output near5 subset same packet\$1)	USPAT	OR	OFF	2005/08/08 11:19
L6	7	"370"/\$.ccls. and (output near5 subset same packet\$1).clm.	USPAT	OR	OFF	2005/08/08 11:19
L7	0	6 and (switch with receiver same rout\$3 near20 subset)	USPAT	OR	OFF	2005/08/08 11:20

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4054905, B9202-6150C-037; 920000.

Title

The Christmas-tree switch: an **output** queuing space-division fast **packet** switch based on interleaving distribution and concentration functions.

Author(s)[Wang-W](#); [Tobagi-F-A](#).**Author affiliation**

Dept of Electr Eng, Stanford Univ, CA, USA.

Source

IEEE INFOCOM '91. The Conference on Computer Communications. Proceedings. Tenth Annual Joint Conference of the IEEE Computer and Communications Societies. Networking in the 90s (Cat. No.91CH2979-3), Bal Harbour, FL, USA, 7-11 April 1991, p.163-70 vol.1.

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Publication year

1991.

Language

EN.

Publication type

CPP Conference Paper.

Treatment codes

T Theoretical or Mathematical.

Abstract

A self-routing space-division fast **packet** switch architecture is proposed which achieves **output** queuing with a reduced number of internal paths ($O(N)$). The switch architecture is a multi-level binary tree in which each branch constitutes a group of paths that are shared by all the packets destined to a **subset** of **output** ports. The reduction in the number of internal paths is obtained by interleaving the **packet** distribution and **packet** concentration functions throughout the switch fabric. **Packet** loss may occur at each level of the tree and is dependent on the degree of concentration exercised at that level. Owing to the binary tree structure of the switching fabric, a simple mathematical analysis is performed in order to determine the concentration parameters appropriate for each level. Several implementation architectures based on sorting networks are described. (7 refs).

Descriptors

packet-switching; queueing-theory; switching-theory; trees-mathematics.

Keywords

packet loss; Christmas tree switch; **output** queuing; interleaving distribution; concentration functions; self routing; space division fast **packet** switch architecture; internal paths; multi level binary tree; **packet** concentration; switch fabric; sorting networks.

Classification codes

B6150C (Switching theory).
B6230 (Switching centres and equipment).
B6150J (Queueing systems).

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3	INZZ	ATM ADJ near5 ADJ packets SAME unmodified	unrestricted	0	-
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- ☒ Classification codes A: Physics, 7
- ☒ Classification codes A: Physics, 8
- ☒ Classification codes A: Physics, 9
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